TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL NASA/GODDARD SPACE FLIGHT CENTER REQUEST FOR TASK PLAN / TASK ORDER CONTRACT NO TASK NO. JOB ORDER NUMBER CONTRACTOR TASK NO. NAS5-AMENDMENT 99124 QSS Group, Inc. 98 563-458-40-31-89 TASK TITLE: (NTE 80 characters; include Project name) Life Cycle Testing of 93 Ah NiH2 Cell Pack for HST Spacecraft APPROVALS: (Type or print name and sign) ASSISTANT JECHNICAL REPRESENTATIVE (OR TASK MONITOR) CODE Gopal Rao 563 563 301-286-6654 CODE Marlon Enciso 563 301-286-5845 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) 568 Fred Huegel 301-286-2285 DESIGNATED FAM: FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? CONTRACTING OFFICER'S QUALITY REP 'IIF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) Larry Moore [] YES The contractor shall identify and explain the reason for any deviations, exceptions, (To be completed by Contracting Officer) or conditional assumptions taken with respect to this Task Order or to any of the C.O. Requested Quote on: technical requirements of the Task Order Statement of Work and related specifications. 9 1999 The contractor shall complete and submit the required Reps and Certs. Contractor will develop specification or statement of work under this task for a future procurement. [X] NO [] YES Flight hardware will be shipped to GSFC for testing prior to final delivery. [] NO [] YES [X] N/A Government Furnished Property/Facilities: ON KK [] YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only) Onsite Performance: [] PARTIAL [X] NO [] YES If yes: If partial, indicate onsite work in SOW by asterisk (*) Surveillance Plan Attached: [X] NO [] YES Highlighted Contract Clauses: (to be completed by Contracting Officer) Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be May 3, 1999. No Government Furnished Property (GFP) is provided under this task. The Contractor shall provide all required facilities and equipment necessary to successfully complete this task. INCENTIVE FEE STRUCTURE (check one) (See Contract NAS5-99124, Attachment K, Incentive Fee Plan) No. 2 X No. 3 No. 4 No. 5 No. 1 25% % Cost 10% 50% 25% Schedule 15% 25% 25% 50% 25% Technical (To be completed by Contracting Officer) The target cost of this task order is \$ 57,105 The target fee of this task order is \$ 545 The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 57,650 The maximum fee is \$ 797 The minimum fee is \$0. AUTHORIZED SIGNATURE: THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE Lorrie L. Eakin Contracting Officer SIGNATURE OF CONTRACTING OFFICER CONTRACTOR'S ACCEPTANCE: AUTHORIZED SIGNATURE DATE

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACT NO TASK NO. TASK NO. AMENDMENT 99124 QSS Group, Inc.

Applicable paragraphs from contract Statement of Work:

Function 2.D.7

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

The contractor shall provide an uninterrupted transition of the existing testing from the current contractor.

The contractor shall provide services to perform Stress Cycle testing of battery cells for the HST Program. The cells to be tested are 93 ampere-hour NiH2 cells for the HST Program.

The contractor shall provide the following services:

Assemble life cycle test packs from the battery cells.

Perform initial acceptance test

- Provide cell capacities at 20, 10 and 0 degrees C.
- Perform Charge retention test at 10 degrees C.

Present electrical performance data from the initial acceptance test to ATR and/or his representative.

Perform stress test at 10 degrees C and 60 percent Depth-of-Discharge.

- Stress test orbit shall be 90 minutes: 60 minutes charge and 30 minutes discharge.
- Clamp the voltage during the charge and provide a minimum 15 minutes of trickle charge.

The contractor shall notify the ATR of any cell failure within 48 hours of such a failure.

The contractor shall prepare a corrective action plan after such a failure, and submit it to the ATR within 72 hours of the failure.

The contractor shall fax (301-286-1751) a typical orbit data weekly to the ATR.

The contractor shall submit written status report after every one thousand orbits.

Upon completion of the cycling program, the contractor shall submit a final report to the ATR within 21 days.

PERFORMANCE SPECIFICATIONS:

All plans and testing under this task are to be produced and performed using aerospace cell testing standard.

APPLICABLE DOCUMENTS:

HST Stress Test Plan by Gopal Rao, Code 563, GSFC

TASK END DATE:

5/31/01

(First Pack: 12/31/99 Second Pack: 5/31/01)

MILESTONES/DELIVERABLES AND DATES:

A typical orbit data Status Report Cell Failure Notification Corrective Action Plan Final Report

Weekly

Every one tho usand orbits Within 48 hours of such a failure Within 72 hours of the failure

Within 21 days of the completion of testing

PERFORMANCE STANDARDS:

Schedule: Technical:

On-time delivery of the above

ATR's acceptance of the above FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):

Gopal Rao, building 20, room 166